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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Applicant: Thomas Arvidsson

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Title: Tube-Formed Rock Bolt

Commissioner for Patents
Washington, D.C. 20231

Attn: PCT-US/EO

ABSTRACT OF THE DISCLOSURE

AB
- -A tube-formed rock bolt has a closed profile for anchoring in a bore hole. The bolt is anchored in the bore hole through internal pressurization with a fluid, such as water, so that the diameter of the bolt is plastically expanded into contact with the wall of the hole. The bolt has, prior to expansion, a cross-section having a peripheral length exceeding the circumference of the hole, and a maximum diameter which is smaller than that of the hole. The tube has a variable wall thickness in a peripheral direction for obtaining a profile sufficiently flexible for expansion while simultaneously having a sufficiently large cross sectional area for providing strength. The tube-formed bolt can be produced by extrusion of an aluminum-based material.- -